

<p align="center"><b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b></p>	<p><b>Application No.</b> 10/593,463</p>	<p><b>Applicant(s)</b> DAGUIER ET AL.</p>	
	<p><b>Examiner</b> MARK L. SHEVIN</p>	<p><b>Art Unit</b> 1733</p>	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 25 October 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See continuation sheet: \_\_\_\_\_  
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_  
13. ☒ Other: Attach: PTOL-413.

/Mark L. Shevin/

/George Wyszomierski/  
Primary Examiner  
Art Unit 1733

Applicants assert (p. 5, para 1-5) that the closest example of the prior art Badard (Table 3 of Badard in view of claim 3) would have a Jominy curve that "would not be rectilinear or at the very least would have a significant marked inflection point" as the closest example of Badard does not control Al, Nb, and N within the narrowly defined ranges as disclosed in the instant specification.

Applicants further assert (p. 6, para 1-3) that the comparative example D has a N content within the claimed range yet has a Jominy curve with a significant marked inflection point at a depth of 6-7 mm, which shows that the N content is fundamental to the presently claimed invention and that the closest example cited by the Examiner "cannot achieved the unexpected results of the presently claimed invention" as the ranges of Al, Nb, and N are critical.

In response, the closest example of Badard has( all in wt%), C:0.23, Mn:1.32, Si: 0.95, Cr:1.11, Mo: 0.10, S: 0.032, P:0.016, Al:0.008-0.05, Nb:0.02-0.05, N: 0.007-0.025, Fe:Bal where C, Mn, Si, Cr, Mo, S, and P are within the ranges of claim 1 while Al, Nb, and N overlap all of the claimed ranges of Al, Nb, and N. The observation that Badard does not control the Al, Nb, and N contents to the same degree as Applicants is \*not\* sufficient evidence to conclude that Badard cannot have the type of Jominy curves the instant invention does in the absence of actual comparative testing. (MPEP 716.02, III and 716.02(e).

As explained before, the Examiner disagrees with the assertion that any of the Al, Nb, and N ranges are critical or lead to unexpected results because Applicants lack the evidence necessary to demonstrate that the results occur over the entire claimed ranges (commensurate in scope) and the comparative examples, whenever they have a required element outside the claimed range, are always lower, which prevents one of ordinary skill from reasonably concluding that the results are actually unexpected in view of the lack of objective evidence of what happens when alloying components are above the claimed range.

Furthermore, a single data point as embodied in comparative example D is insufficient to demonstrate N as critical for lack of statistical importance, the fact that the influence of the lower Cr content cannot be separated from the influence of N content in the absence of a control.

Applicants assert (p. 6, para 4 to p. 8, para 2) that the "comparative samples having alloying elements present in amounts greater than claimed are not necessary for illustrating the unexpected results of the presently claimed invention since it would be obvious to one of ordinary skill in the art that the steels havin alloying elements present in amounts greater than claimed would not be satisfactory for their intended purposes for reasons well known to metallurgists."

In response, this is not persuasive for a number of reasons. First, Applicants assert that comparative examples having lower contents of alloying elements demonstrate criticality of the claimed ranges and/or produce Jominy curves having significant inflection points while by their logic, comparative examples examples having lower alloying ranges would also not be needed because one of ordinary skill in the art would just as well known that steels having alloying elements present in amounts \*less\* than claimed would \*also\* not be satisfactory for their intended purposes. Applicants' assertion would establish an unwarranted double standard between amounts below the range and amounts above the range. Second, the necessity of comparative examples outside and above the claimed ranges is to show, by objective quantitative, test results, that the the showing of unexpected results must be reviewed to see if the results occur over the entire claimed range and qualitative assurance in the instant specification of what happens above the claimed ranges is no substitute for actual testing. Third the requirement of testing outside the range allows for objective wieghing of the expected vs. unexpected properties (MPEP 716.02(c) and moreover help to establish that the differences in results are in fact unexpected and unobvious and of both statistical and practical significance (MPEP 716.02(b).